Reference = ARTAMONOV 05; PL B623 192
Verifier code = E949

Normally we send all verifications for one experiment to one person, usually the spokesperson or data-analysis coordinator, who then distributes them to the appropriate people. Please tell us if we should send the verifications for your experiment to someone else.

PLEASE READ NOW

PLEASE REPLY WITHIN ONE WEEK

Steven H. Kettell

EMAIL: kettell@bnl.gov

April 18, 2006

Dear Colleague,

The attached sheets from the "Review of Particle Physics" Particle Listings contain information from your experiment that was recently added to our database. There may be other papers that we have not yet added; please inform us of any such journal papers if they have been accepted for publication. You are the *only* author of this paper to whom this request is being sent, so please forward this to another author if appropriate.

We ask you to check the information marked "YOUR DATA" and "YOUR PAPER," note any necessary changes, and return the corrected sheets to us. In particular:

(1) Return the sheets to us *even if no change is needed*, marking them in that case "OK."

(2) Please feel free to comment on our treatment of other data listed on these sheets. We appreciate suggestions for improvements.

(3) You may respond by electronic mail, but then be sure to include the "Reference" above and the **NAME** of the particle, the **PROPERTY**, and the **PROPERTY NODE** on which you are commenting. (The "**PROPERTY NODE**" is the code given on the right-hand side of the data, *e.g.,* "`NODE=S043M`.")

Thank you for helping us make the Review accurate and useful.

Sincerely,

Tom Trippe
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Berkeley, CA 94720-8153
USA

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FAX: 1-(510)-486–4799
EMAIL: TGTrippe@lbl.gov

STRANGE MESONS
($S = \pm 1$, $C = B = 0$)

NODE=MXXX020

$K^+ = u\bar{s}$, $K^0 = d\bar{s}$, $\overline{K}^0 = \overline{d}s$, $K^- = \overline{u}s$, similarly for K^*'s

NODE=MXXX020

NODE=S010

$K^\pm$

$I(J^P) = \frac{1}{2}(0^-)$

K^+ BRANCHING RATIOS

NODE=S010245

Hadronic modes with photons

NODE=S010420

$\Gamma(\pi^+\gamma\gamma)/\Gamma_{total}$ **Γ_{26}/Γ**

NODE=S010R12

All values given here assume a phase space pion energy spectrum.

NODE=S010R12

NODE=S010R12

	VALUE (units 10^{-7})	CL%	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
YOUR DATA	**< 0.083**	90		[49] ARTAMONOV	05	B949	+	P_{π^+} >213 MeV/c
• • • We do not use the following data for averages, fits, limits, etc. • • •								
	11 ± 3±1		31	[50] KITCHING	97	B787		
<	10	90	0	ATIYA	90B	B787		Tπ 117–127 MeV
<	84	90	0	ASANO	82	CNTR	+	Tπ 117–127 MeV
	−420 ±520		0	ABRAMS	77	SPEC	+	Tπ <92 MeV
<	350	90	0	LJUNG	73	HLBC	+	6–102, 114–127 MeV
<	500	90	0	KLEMS	71	OSPK	+	Tπ <117 MeV
	−100 ±600			CHEN	68	OSPK	+	Tπ 60–90 MeV

[49] ARTAMONOV 05 limit assumes ChPT with $\hat{c}$= 1.8 with unitarity corrections. With $\hat{c}$= 1.6 and no unitarity corrections they obtain < 2.3×10^{-8} at 90% CL

NODE=S010R12;LINKAGE=AR

[50] KITCHING 97 is extrapolated from their model-independent branching fraction $(6.0 \pm 1.5 \pm 0.7) \times 10^{-7}$ for 100 MeV/c<P_{π^+} < 180 MeV/c using Chiral Perturbation Theory.

NODE=S010R12;LINKAGE=A

Lepton Family number (LF), Lepton number (L), $\Delta S = \Delta Q$ (SQ) violating modes, or $\Delta S = 1$ weak neutral current ($S1$) modes

NODE=S010430

$\Gamma(\pi^+\gamma)/\Gamma_{total}$ **Γ_{49}/Γ**

NODE=S010R34

Violates angular momentum conservation. Current interest in this decay is as a search for exotic physics such as a vacuum expectation value of a new vector field, non-local Superstring effects, or departures from Lorentz invariance, as discussed in ADLER 02B.

NODE=S010R34

NODE=S010R34

	VALUE (units 10^{-9})	CL%	DOCUMENT ID		TECN	CHG
YOUR DATA	**< 2.3**	90	ARTAMONOV	05	B949	+
• • • We do not use the following data for averages, fits, limits, etc. • • •						
	< 360	90	ADLER	02B	B787	+
	<1400	90	ASANO	82	CNTR	+
	<4000	90	[71] KLEMS	71	OSPK	+

[71] Test of model of Selleri, Nuovo Cimento **60A** 291 (1969).

NODE=S010R34;LINKAGE=K

$K^\pm$ REFERENCES

NODE=S010

YOUR PAPER	ARTAMONOV	05	PL B623 192	A.V. Artamonov *et al.*	(BNL E949 Collab.)
	ADLER	02B	PR D65 052009	S. Adler *et al.*	(BNL E787 Collab.)
	KITCHING	97	PRL 79 4079	P. Kitching *et al.*	(BNL E787 Collab.)
	ATIYA	90B	PRL 65 1188	M.S. Atiya *et al.*	(BNL E787 Collab.)
	ASANO	82	PL 113B 195	Y. Asano *et al.*	(KEK, TOKY, INUS, OSAK)
	ABRAMS	77	PR D15 22	R.J. Abrams *et al.*	(BNL)
	LJUNG	73	PR D8 1307	D. Ljung, D. Cline	(WISC)
	Also		PRL 28 523	D. Ljung	(WISC)
	Also		PRL 28 1287	D. Cline, D. Ljung	(WISC)
	Also		PRL 23 326	U. Camerini *et al.*	(WISC)
	KLEMS	71	PR D4 66	J.H. Klems, R.H. Hildebrand, R. Stiening	(CHIC+)
	Also		PRL 24 1086	J.H. Klems, R.H. Hildebrand, R. Stiening	(LRL+)
	Also		PRL 25 473	J.H. Klems, R.H. Hildebrand, R. Stiening	(LRL+)
	SELLERI	69	NC 60A 291	F. Selleri	
	CHEN	68	PRL 20 73	M. Chen *et al.*	(LRL, MIT)

REFID=50568
REFID=48610
REFID=45721
REFID=41282
REFID=11013
REFID=11001
REFID=10971
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